

**Amendments to the Specification:**

**At page 1, line 5, please insert the following sentence:**

This is a divisional application of Serial No. 09/582,675, filed June 29, 2000, which corresponds to International Application PCT/JP99/06158, filed November 5, 1999.

**Please amend the paragraph beginning at page 33, line 11, as follows:**

Recording pattern (1) shown in Fig. 7 (A), for example, is used to determine the leading mark-edge pulse parameter 5Ts4Tm for forming a 4Tm mark after a preceding space mark of 5Ts or greater. Recording pattern (1) is a repeated signal of 8Tm, 6Ts, 4Tm, 6Ts.

**Please amend the paragraph beginning at page 33, line 23, as follows:**

The operating steps of the present embodiment are described below. An example using recording pattern (1) to determine the leading mark-edge pulse parameter 5Ts4Tm for forming a 4Tm mark after a preceding space mark of 5Ts or greater is described in detail below by way of example, but it should be noted that the steps for determining other recording pulse parameters are identical except for using a different recording pattern.

**Please amend the paragraph beginning at page 34, line 9, as follows:**

The second step test writes the specific recording pattern (1) for determining the recording pulse parameter 5Ts4Tm to optical disc. The standard recording pulse parameter for 5Ts4Tm is output directly as recording pulse parameter setting 18, and recording pattern (1) is converted by recording compensator 17 ~~18~~ based on the recording pulse parameter setting to multipulse data 19. The multipulse data 19 is converted by laser driving means 20 to current 21 for driving the laser, and supplied to head 3. The head 3 then records to a writable track.

**Please amend the paragraph beginning at page 38, line 1, as follows:**

The sixth step sets the recording pulse parameter 5Ts4Tm used thereafter by the recording and reproducing device based on the jitter voltages Vf collected in steps four and five. That is, the

case in which the jitter voltage  $V_f$  is lowest or less than or equal to the allowed value is obtained from the plural test writing and reading operations, and the correction value from that case is used. Using the cases shown in Fig. 8, Fig. 9, and Fig. 10 by way of example, a correction value of +2 for the leading mark-edge pulse parameter  $5T_s4T_m$  is used. The read/write controller 22 ~~24~~ in Fig. 1 thus selects the correction value at which the leading mark-edge jitter voltage is lowest or is less than or equal to the allowed value, and thereafter uses the selected correction value as the value of the recording and reproducing device for leading mark-edge pulse parameter  $5T_s4T_m$ .

**Please amend the paragraph beginning at page 42, line 1, as follows:**

For recording pulse parameters not selected, the read/write controller 22 ~~24~~ sets the values obtained by interpolation from the correction values of selected recording pulse parameters as the recording pulse parameter of the recording and reproducing device, and uses this interpolated value for data reading and writing. As a result, the time required to determine and set all of the recording pulse parameters can be significantly shortened.